IN THE U.S. PATENT AND TRADEMARK OFFICE

APPLICANT: Takashi AKETA et al.

APPLICATION NO.: 10/829,154

FILING DATE: April 22, 2004

FOR: Air Bag Sealer Silicone Rubber Composition

ART UNIT: 1791

EXAMINER: FISCHER, JUSTIN R

D E C L A R A T I O N

Honorable Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir,

I, Hiroyasu HARA, resident of c/o Silicone-Electronics Materials Research Center, Shin-Etsu Chemical Co., Ltd., 1-10, Hitomi, Matsuida-machi, Annaka-shi, Gunma-ken, Japan do hereby declare that:

1. I was graduated from Faculty of Technology, Chuo University, Japan in March, 1989. Since April 1989, I have been employed by Shin-Etsu Chemical Co., Ltd., the assignee of the above-identified application. I have been engaged in research and development relating to silicone resins and silicone rubbers in the laboratory of the Company.

2. I am one of the named inventors of the above-identified application and hence, am familiar with the subject matter disclosed in said application.

3. In order to show the feature of the present invention, I conducted the following experiments.

[Experiments]

Comparative Example 3

Example 1 of the specification of the above-identified patent application was repeated except that (A-1) untreated aluminum hydroxide powder H-42 (average particle size 1.1 μm) was not blended and the fumed silica treated with dimethylpolysiloxane and hexamethyldisilazane was used in an amount of 56 parts by weight instead of 21 parts by weight to prepare a silicone rubber composition of Comparative Example 3.

Comparative Example 4

Example 1 of the specification of the above-identified patent application was repeated except that 35 parts by weight of (A'-1) untreated aluminum oxide (alumina) powder A-50-K by Showa Denko K.K. (average particle size 1.1 μm) was used instead of 35 parts by weight of untreated aluminum hydroxide powder H-42 (average particle size 1.1 μm) to prepare a silicone rubber composition of Comparative Example 4.

The compositions were evaluated by the same test as in Example 1, with the results shown in the following Table I. The results of Example 1 were also shown in Table I.

Table I

Components (pbw)	Comparative Example		Example
	3	4	1
A-1	0	0	35
A'-1	0	35	0
B	94	94	94
C-1	1.9	1.9	1.9
C-2	8.7	8.7	8.7
D	0.5	0.5	0.5
E	7.5	7.5	7.5
F	1	1	1
G	56	21	21
H	0.15	0.15	0.15
I	0.5	0.5	0.5
Peel strength (N/cm)	2.9	3.0	6.0
Cohesive failure (%)	85	85	100
Elongation at break (%)	900	950	1100
Inflation test adhesion	NG	NG	OK

Components

(A-1) Untreated aluminum hydroxide powder

H-42 by Showa Denko K.K.

average particle size 1.1 μm

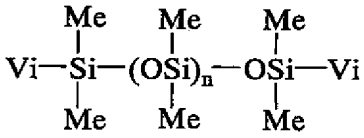
(A'-1) Untreated aluminum oxide powder

A-50-K by Showa Denko K.K.

average particle size 1.1 μm

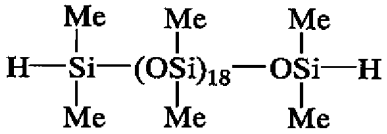
(B) Organopolysiloxane

Vinyl-containing linear organopolysiloxane represented by the formula:

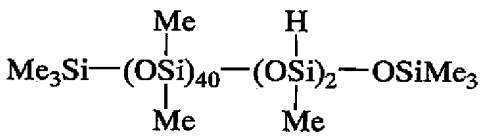


wherein n is such a number that the siloxane has a viscosity of 100,000 cSt at 25°C.

(C-1) Organohydrogenpolysiloxane



(C-2) Organohydrogenpolysiloxane



(D) Platinum group metal catalyst

platinum-divinyltetramethyldisiloxane complex in toluene (Pt content 0.5 wt%)

(E) Reinforcing resin

vinyl-containing methylpolysiloxane resin composed of $Vi(Me)_2SiO_{1/2}$ units and $SiO_{4/2}$ units

(F) Alkoxysilane or partial hydrolytic condensate

phenyltrimethoxysilane KBM103

by Shin-Etsu Chemical Co., Ltd.

(G) Reinforcing inorganic filler

fumed silica treated with dimethylpolysiloxane and hexamethyldisilazane

(H) Cure regulating agent

50% ethynyl cyclohexanol in toluene

(I) Organotitanium compound

$Ti[OCH_2CH(C_2H_5)(CH_2)_3CH_3]_4$

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Dated this 28th day of February , 2008

Hiroyasu Hara